

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

|                            |  |
|----------------------------|--|
| Lake: WASON POND           | Lake Area (ha): 4.33                     |
| Town: CHESTER              | Maximum depth (m): 2.7                   |
| County: Rockingham         | Mean depth (m): 1.0                      |
| River Basin: Coastal       | Volume (m <sup>3</sup> ): 43500          |
| Latitude: 42°58'58" N      | Relative depth: 1.2                      |
| Longitude: 71°13'05" W     | Shore configuration: 1.90                |
| Elevation (ft): ---        | Areal water load (m/yr): 70.84           |
| Shore length (m): 1400     | Flushing rate (yr <sup>-1</sup> ): 70.30 |
| Watershed area (ha): 671.4 | P retention coeff.: 0.29                 |
| % watershed ponded: 0.0    | Lake type: artificial                    |

BIOLOGICAL:

29 January 1998

10 September 1997

|                                    |    |                     |                       |
|------------------------------------|----|---------------------|-----------------------|
| DOM. PHYTOPLANKTON (% TOTAL)       | #1 | NO SAMPLE COLLECTED | DINOBRYON 45%         |
|                                    | #2 |                     | RHIZOLENIA 40%        |
|                                    | #3 |                     |                       |
| PHYTOPLANKTON ABUNDANCE (units/mL) |    |                     |                       |
| CHLOROPHYLL-A (µg/L)               |    |                     | 19.39                 |
| DOM. ZOOPLANKTON (% TOTAL)         | #1 | NO SAMPLE COLLECTED | ASPLANCHNA 72%        |
|                                    | #2 |                     | KERATELLA 10%         |
|                                    | #3 |                     | NAUPLIUS LARVA 9%     |
| ROTIFERS/LITER                     |    |                     | 453                   |
| MICROCRUSTACEA/LITER               |    |                     | 49                    |
| ZOOPLANKTON ABUNDANCE (#/L)        |    |                     | 502                   |
| VASCULAR PLANT ABUNDANCE           |    |                     | Common                |
| SECCHI DISK TRANSPARENCY (m)       |    |                     | 1.9 Visible on bottom |
| BOTTOM DISSOLVED OXYGEN (mg/L)     |    | 13.6                | 7.0                   |
| BACTERIA (E. coli, #/100 ml)       | #1 |                     | 15                    |
|                                    | #2 |                     | 7                     |
|                                    | #3 |                     |                       |

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: WASON POND

Town: CHESTER

|                               | 29 January 1998 |  | 10 September 1997 |  |  |
|-------------------------------|-----------------|--|-------------------|--|--|
| DEPTH (m)                     | 1.5             |  | 1.0               |  |  |
| pH (units)                    | 4.8             |  | 6.8               |  |  |
| A.N.C. (Alkalinity)           | 1.2             |  | 6.0               |  |  |
| NITRATE NITROGEN              | 0.09            |  | < 0.05            |  |  |
| TOTAL KJELDAHL NITROGEN       | 0.20            |  | 0.60              |  |  |
| TOTAL PHOSPHORUS              | 0.005           |  | 0.017             |  |  |
| CONDUCTIVITY ( $\mu$ mhos/cm) | 100.6           |  | 84.4              |  |  |
| APPARENT COLOR (cpu)          | 17              |  | 26                |  |  |
| MAGNESIUM                     |                 |  | 0.90              |  |  |
| CALCIUM                       |                 |  | 3.0               |  |  |
| SODIUM                        |                 |  | 12.1              |  |  |
| POTASSIUM                     |                 |  | 1.36              |  |  |
| CHLORIDE                      | 20              |  | 18                |  |  |
| SULFATE                       | 9               |  | 3                 |  |  |
| TN : TP                       | 58              |  | 35                |  |  |
| CALCITE SATURATION INDEX      |                 |  | 3.2               |  |  |

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1997**

D.O. S.D. PLANT CHL TOTAL CLASS

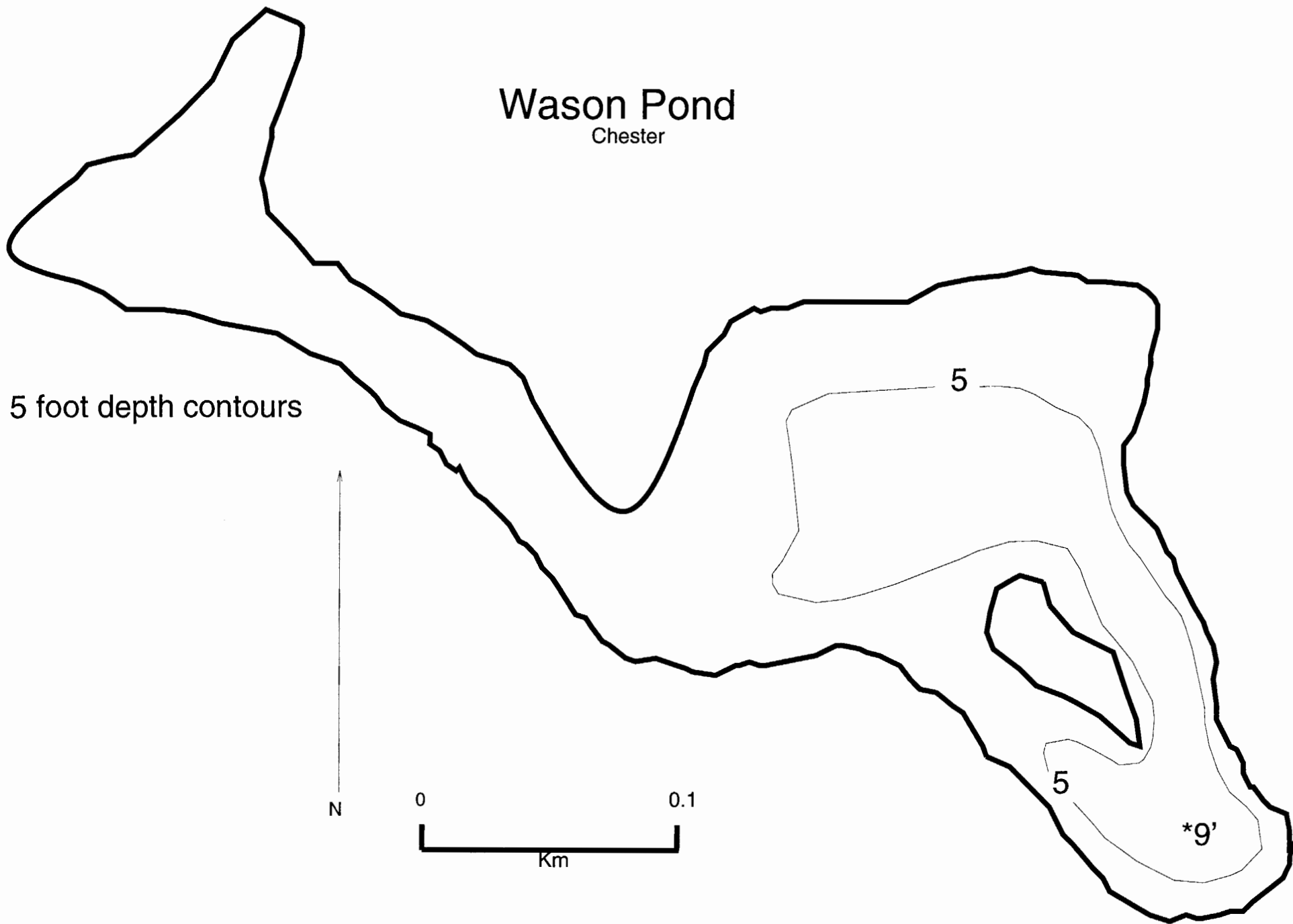
|    |   |   |   |    |        |
|----|---|---|---|----|--------|
| ** | 3 | 3 | 4 | 10 | Eutro. |
|----|---|---|---|----|--------|

**COMMENTS:**

1. This is a manmade pond, an impoundment on Wason Brook. It is privately owned by a campground, with no access to the public. There were camper trailer sites around much of the pond and a campground beach.
2. This is a shallow, eutrophic pond with abundant plankton and common rooted plant growth. *Asplanchna* was a strong dominant in the summer zooplankton. It is a predatory rotifer and is common but rarely dominant.

# Wason Pond

Chester

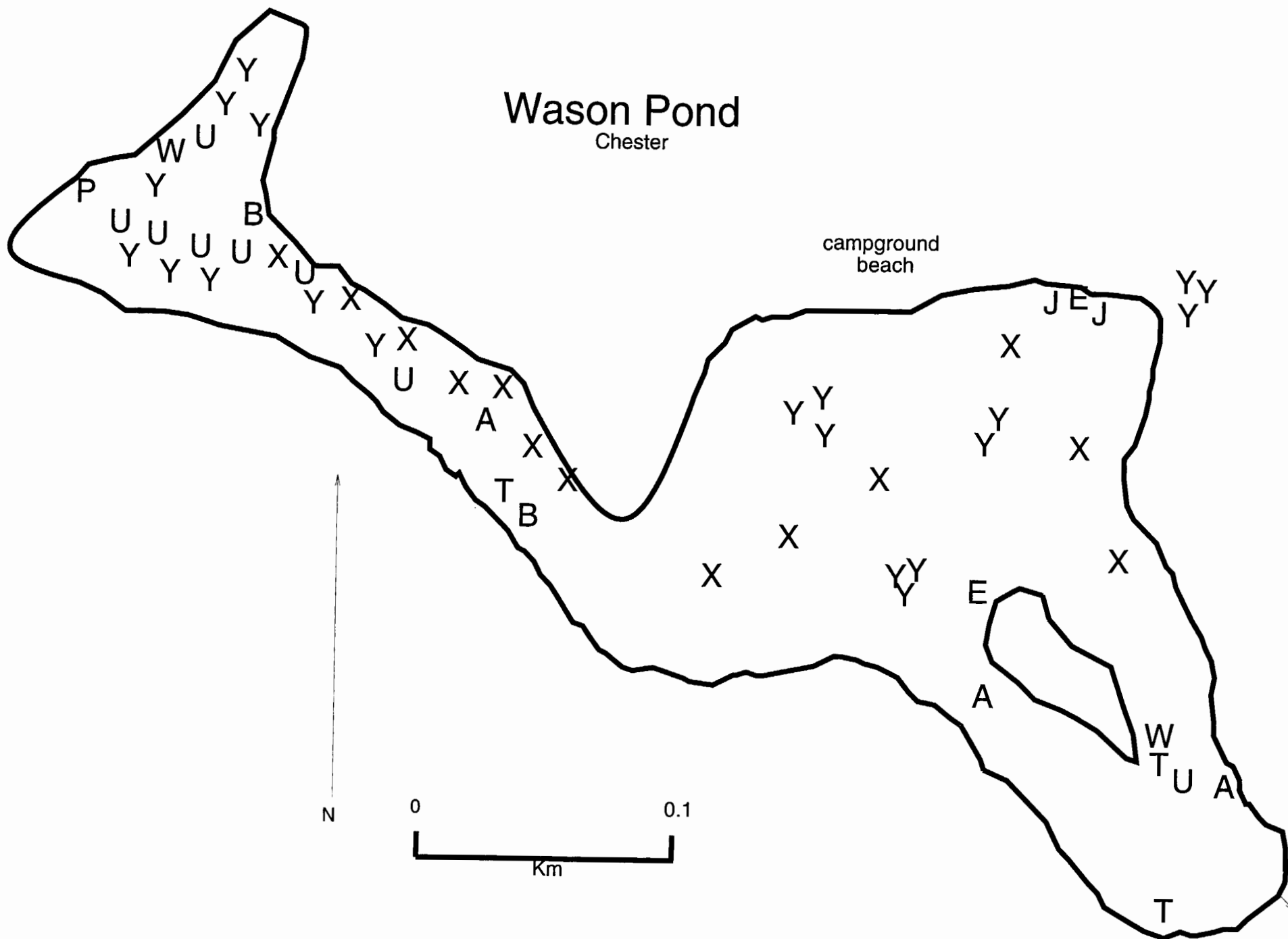


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SECCHI DISK (m):      1.9 VOB      COMMENTS:
BOTTOM DEPTH (m):     1.9
TIME: 1045
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\*Dissolved oxygen values are in mg/L



[illegible]